

CLAIMS

1. A method of rehabilitating water supply pipes comprising developing a tubular liner (10) within a pipe (11),
5 including the use as a liner (10) of a pleated tube of a polyolefin material, formed with multiple longitudinally extending radial pleats, characterized in that the tubular liner (10) comprises a polyolefin elastomer/plastomer of a substantially linear ethylene inter-polymer, and in that
10 said liner (10) is deployed within the pipe (11) by securing one end of the liner (10) at one end of the pipe and pulling the liner (10) through the pipe (11) by means of a line attached to a messenger pig propelled through the pipe by fluid pressure.
- 15 2. A method according to claim 1, characterized in that the liner (10) is pushed and pulled through the pipe (11) by means of a flexible rod attached to the liner (10).
- 20 3. A method according to claim 1 or 2, characterized in that said polyolefin elastomer/plastomer has a specific gravity range which is comprised between 830 and 967 kg/m³, preferably 863 and 913 kg/m³ and more preferably 885 and 913 kg/m³.
- 25 4. A method according to claim 3, characterized in that said inter-polymer comprises 50-95% by weight of ethylene, and 5-50% by weight of at least one olefinic co-monomer.
- 30 5. A method according to claim 4, characterized in that the co-monomer has from 3 to 20 carbon atoms.
- 35 6. A method according to claim 5, characterized in that the co-monomer is anyone or more of : propylene, 1-butene, 1-hexene, 4-methyl-1-pentene, 1-heptene, and 1-octene.

7. A method according to any one of claims 1 to 6, characterized in that the polyolefin elastomer is cross-linked.

5 8. Water supply pipe characterised in that it comprises a tubular liner (10) of a polyolefin elastomer/plastomer.

9. Water supply pipe according to claim 8, characterised in that the liner (10) comprises a pleated tube formed with
10 multiple longitudinally extending radial pleats,

10. Water supply pipe according to claim 8 or 9, characterized in that the polyolefin elastomer/plastomer comprises a substantially linear ethylene inter-polymer.
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11. Water supply pipe according to claim 8 or 9, characterized in that the polyolefin elastomer/plastomer has a narrow molecular weight distribution from 1,8 to 2,2.

20 12. Water supply pipe according to claim 10 or 11, characterized in that said inter-polymer comprises 50-95% by weight of ethylene, and 5-50% by weight of at least one olefinic co-monomer.

25 13. Water supply pipe according to claim 10 or 11, characterized in that the co-monomer has from 3 to 20 carbon atoms.

30 14. Water supply pipe according to claim 13, characterized in that the comonomer is any one or more of : propylene, 1-butene, 1-hexene, 4-methyl-1-pentene, 1-heptene and 1-octene.

35 15. Apparatus for making water supply pipe according to any one of claims 8 to 14 and using the method according to any one of claims 1 to 7, characterized in that it includes means for deploying the liner (10) into the pipe (11)

including a messenger pig and a line to pull the liner through the pipe.

- 5 16. Apparatus according to claim 15, characterized in that it includes means for forming the liner by extrusion and die drawing during extrusion.